

**IN THE ABSTRACT:**

**ABSTRACT OF THE DISCLOSURE**

To provide a compact power source best suited for portable use, which uses no separator and has no auxiliary equipment such as a fluid supply mechanism, and portable electronic equipment using the power source. A fuel cell, a fuel cell generator, and electric equipment using these have a construction such that the fuel cell, having an anode for oxidizing liquid fuel, a cathode for reducing oxygen, and an electrolyte membrane for insulating said the anode from said the cathode, has a construction of a hollow support, the anode, electrolyte membrane, and cathode are disposed on the outer peripheral surface of the hollow support to form a generator section, and the fuel is brought into contact with the inside of the hollow support and gas containing the oxygen is brought into contact with the outside of the generator section.